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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,246	08/28/2003	Frank Athari	IR-2311 (2-3643)	7190

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EXAMINER	
RUTLAND WALLIS, MICHAEL	
ART UNIT	PAPER NUMBER
2836	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/650,246	ATHARI, FRANK	
	Examiner	Art Unit	
	Michael Rutland-Wallis	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/24/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *2-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

The indicated allowability of claim 8 is withdrawn in view of the newly discovered references to Krein et al. Rejections based on the newly cited references follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 6, 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Krein et al. (U.S. Pat. No. 5,668,464)

With respect to claim 2 Krein teaches the output of the power transistor switching stage comprises an output stage comprising an inductor (L) and a capacitor (Cout) with the output voltage provided across the capacitor.

With respect to claim 6 Krein teaches the output voltage of the power transistor switching stage is DC such as that required by a load such as a computer, appliance or other electronic circuit (col. 1 lines 15-21).

With respect to claim 8 and 9 Krein teaches a circuit arrangement comprising a power transistor switching stage (switching power converter described in col. 1 line 10-20, see switch connected to battery) providing an output voltage and an active EMI filter (item 12) having an input (connection at Vi) and an output (CT current transformer), the input of the active EMI filter (connection at Vi) connected to receive the output voltage of the power transistor switching stage and the output of the active EMI filter providing a filtered output voltage (V0), wherein the power transistor switching stage is a switch mode power supply (switch mode power converter to supply load with power).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krein et al. (U.S. Pat. No. 5,668,464) in view of Takahashi (U.S. Pat. No. 6,593,751)

With respect to claim 3 Krein teaches the active EMI filter comprises an amplifier (AMP fig. 4 or 5) stage having transistors. Krein does not detail the further elements contained within the amplification stage and does not teach the two transistors each controlled by a current sensor, the current sensor sensing the presence of a common mode current to a load connected to the active EMI filter. Takahashi teaches the active EMI filter comprises an amplifier stage having two transistors (see Fig. 3) each

controlled by a current sensor (item 22), the current sensor sensing the presence of a common mode (col. 2 lines 59 – col. 3 line 13) current to a load (item 26) connected to the active EMI filter, said two transistors having a common connection (see Fig. 3) coupled to an isolating capacitor (not labeled seen connected to wire 24) coupled to a ground line (item 24), the isolating capacitor passing a current to cancel the common mode current in said ground line. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a similar amplification stage to that seen in Takahashi in order to power the output signal to filter the output voltage

With respect to claim 4 Takahashi teaches wherein the two transistors are complementary (see transistors in fig. 3).

With respect to claim 5 Takahashi teaches the ground line (item 24) connects the load (item 26) and the power transistor switching stage (item 14).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krein et al. (U.S. Pat. No. 5,668,464) Krein teaches the output voltage of the power transistor switching stage is DC such as that required by a load such as a computer, appliance or other electronic circuit (col. 1 lines 15-21). Krein however also teaches the output of the power transistor stage contains an AC portion and therefore may be considered an AC voltage, further it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Krein to use an AC switching power converter in order to utilize the arrangement with a load that requires a filtered AC power signal.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Greaves (U.S. Pat. No. 4,147,997) teaches the replacement of passive filter with active filters is known in order to meet size limitations and/or gain efficiencies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-22058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

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